IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **Hashemi, et al.**

Serial No.:

Filed:

For: Multiple Chip Module with Integrated RF Capabilities

This is a Rule 1.53(b) continuation of pending U.S. Application entitled "Multiple Chip Module with Integrated RF Capabilities," Serial No. 09/239,617, filed January 29, 1999 and assigned to the assignee of the present application.

Examiner:

Group Art Unit:

PRELIMINARY AMENDMENT TO CONTINUATION APPLICATION

Honorable Commissioner of
Patents and Trademarks
Washington, D. C. 20231

Dear Sir/Madam:

This amendment is directed to the accompanying 37 CFR §1.53(b) continuation application. The parent application Serial No. 09/239,617, filed January 29, 1999 has received a Notice of Allowance and is in Class 361, Subclass 760.000 in Art Unit 2841. Please enter the following amendments in the present §1.53(b) continuation application.

In the Specification:

After the title, please insert the sentence: --This is a continuation of application Serial No. 09/239,617 filed January 29, 1999.--

In the Claims:

Please cancel claims 1-90.

Please add the following new claims:

--91. An integrated module comprising:

a single interconnect substrate;

a first active circuit chip wire bonded to said single interconnect substrate;

a first discrete component surface mounted on said single interconnect substrate; and

a second discrete component embedded in said single interconnect substrate.--

--92. The integrated module of claim 91 wherein said first discrete component is surface mounted using a high-temperature solder.--

--93. The integrated module of claim 91 further comprising a solder mask area on said single interconnect substrate.--

--94. The integrated module of claim 93 wherein said solder mask area is adjacent to said first discrete component.--

--95. The integrated module of claim 91 wherein said first discrete component is selected from the group consisting of an inductor, a transformer, a capacitor, and a resistor.--

--96. The integrated module of claim 91 wherein said second discrete component is selected from the group consisting of an inductor, a transformer, a capacitor, and a resistor.--

--97. The integrated module of claim 91 wherein said single interconnect substrate comprises a plurality of metal layers and a plurality of dielectric layers.--

--98. The integrated module of claim 97 wherein at least one of said plurality of metal layers defines a printed component.--

--99. The integrated module of claim 98 wherein said printed component is selected from the group consisting of an inductor, a resistor, a capacitor, and a transformer.--

--100. The integrated module of claim 97 wherein at least one of said plurality of metal layers defines a ground plane.--

--101. The integrated module of claim 91 wherein said first active circuit chip comprises an RF section.--

--102. The integrated module of claim 91 wherein said first active circuit chip comprises an IF section.--

--103. The integrated module of claim 91 further comprising a second active circuit chip.--

--104. The integrated module of claim 103 wherein said first and second active circuit chips respectively comprise first and second RF sections.--

--105. The integrated module of claim 103 wherein said first active circuit chip comprises an RF section and wherein said second active circuit chip comprises an IF section.--

--106. The integrated module of claim 103 wherein said first active circuit chip comprises a CMOS chip and wherein said second active circuit chip comprises a GaAs chip.--

--107. The integrated module of claim 97 wherein at least one of said plurality of metal layers defines said first discrete component.--

--108. The integrated module of claim 107 wherein said first discrete component is selected from the group consisting of an inductor, a resistor, a capacitor, and a transformer.--

--109. The integrated module of claim 97 wherein at least one of said plurality of metal layers defines said second discrete component.--

--110. The integrated module of claim 109 wherein said second discrete component is selected from the group consisting of an inductor, a resistor, a capacitor, and a transformer.--

--111. An integrated module comprising:

a single interconnect substrate including a plurality of metal layers and a plurality of dielectric layers;

first and second active circuit chips on a top surface of said single interconnect substrate;

a conductive ring formed on said single interconnect substrate, said conductive ring enclosing said first and second active circuit chips;

a conductive strip formed on said single interconnect substrate, said conductive strip situated between said first and second active circuit chips;

a metal lid covering said first and second active circuit chips, said metal lid contacting said conductive ring and said conductive strip, wherein said metal lid, said

conductive ring, and said conductive strip substantially prevent electromagnetic interference from reaching said first and second active circuit chips.--

--112. The integrated module of claim 111 further comprising a first ground plane below said first active circuit chip, wherein said first ground plane substantially prevents electromagnetic interference from reaching said first active circuit chip.--

--113. The integrated module of claim 112 wherein said first ground plane is defined by at least one of said plurality of metal layers below said first active circuit chip.--

--114. The integrated module of claim 112 further comprising a second ground plane below said second active circuit chip, wherein said second ground plane substantially prevents electromagnetic interference from reaching said second active circuit chip.--

--115. The integrated module of claim 114 wherein said second ground plane is defined by at least one of said plurality of metal layers below said second active circuit chip.--

--116. The integrated module of claim 111 wherein said conductive ring is coupled to ground through a plurality of peripheral vias.--

--117. The integrated module of claim 112 wherein said conductive ring is coupled to said first ground plane through a plurality of peripheral vias.--

--118. The integrated module of claim 114 wherein said conductive ring is coupled to said second ground plane through a plurality of peripheral vias.--

--119. The integrated module of claim 111 wherein said conductive strip is coupled to ground through a plurality of peripheral vias.--

REMARKS

This is a Rule 1.53(b) continuation application of the parent application, Serial No. 09/239,617, filed January 29, 1999. In the parent application, claims 1-52 and 67-90 have been allowed and claims 53-66 have been canceled. This continuation application is filed during the pendency of the parent application.

By this preliminary amendment, applicant has canceled claims 1-90 in the present continuation application and has added new claims 91-119. No new matter has been introduced in the present continuation application. Accordingly, claims 91-119 remain in the present Rule 1.53(b) continuation application. Consideration and examination of pending claims 91-119 is respectfully requested.

A true and correct copy of the parent application, including the specification, drawings and claims, as originally filed, is enclosed. Formal drawings corresponding to the originally filed informal drawings are also enclosed. Also enclosed is a true and correct copy of the declaration as filed in the parent application.

Moreover, a copy of the "Revocation and Power of Attorney" in the parent application is also enclosed. As noted in the enclosed Revocation and Power of Attorney, Applicants' attorneys have changed and the Examiner is respectfully requested to make a note of this change and to direct all correspondence to the undersigned attorney in the present continuation application whose address and phone number appear below.

Respectfully submitted,

Date: 10/29/01

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Sara Ansari
(Typed or Printed Name of Person Mailing Paper or Fee)